

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 13-22 and 27 are pending in this application. Claims 18, 19, and 22 stand withdrawn from consideration. Claims 13-16 and 27 were objected to for informalities. Claims 13, 15, 17, 20, 21, and 27 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. 6,165,822 to Okuno et al. (herein “Okuno”). Claims 13, 14, and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. 5,893,736 to Lee et al. (herein “Lee”) in view of Okuno. That objection and rejections are traversed as now discussed.

Addressing first the objection to claims 13, 16 and 27, the claims are amended to address the noted objections.

First, Applicants note throughout the claims now recite a “high impurity concentration” and a “low impurity concentration”.

Claim 13, line 5, now recites the term “silicon carbide substrate”.

Further, claim 27 at line 6 now recites the term “the upper surface” and at line 7 now recites the term “low impurity concentration”.

The presently submitted amendments are believed to address the outstanding objections to the claims.

Addressing now the above-noted prior art rejections, the claims as currently written are believed to distinguish over the applied art.

Independent claim 13 is herein amended as suggested in the Office Action to clarify a term therein. In support of the outstanding rejections, in view of previously submitted claim amendments and arguments to the allowability of the current claims over the applied art, the outstanding Office Action on page 10 states:

- (1) Merriam-Webster dictionary defines “adjacent” as “not distant” or “nearby”, and “portion” as “an often limited part of a whole”. Therefore the limitation “the high concentration gate region being adjacent to a non-implanted portion” does not

necessarily suggest that “the high concentration gate region” is adjacent to and in contact with the “non-implanted portion”, wherein the “non-implanted portion” can be any arbitrarily selected portion of layer 20 between p⁺ regions in Lee et al. (2) An arbitrarily selected central portion of layer 20 between p⁺ regions in Lee et al. having a smaller width than a width of a low concentration base region (portion of 22 between two p⁻ regions) is an exposed part of an upper surface of a lower deposition film (20). (3) The low concentration base region (portion of 22 between two p⁻ regions) is clearly formed on the non-implanted portion, which is an arbitrarily selected central portion of layer 20 between p⁺ regions.

Okuno et al. and Lee et al. do not disclose that the non-implanted portion is adjacent to and in contact with the high concentration gate region and another high concentration gate region formed in the lower deposition film. An amended claim drawn to this limitation may likely overcome rejection over prior art of record. (Original emphasis).

The above-noted grounds for maintaining the rejection appear to indicate if the claims are amended to more clearly recite the high concentration gate region being adjacent to “and in contact with” the non-implanted portion, then the claims will distinguish over the applied art to Okuno and Lee. The claims have been so amended.

In further detail, such claim amendments are believed to further distinguish the claims over both Okuno and Lee.

The grounds for the rejection rely on Okuno to disclose for example in Figure 7C the “high concentration gate region” as elements 30a, 30b, the “non-implanted portion” as an arbitrary portion of element 2, and the “low concentration base region” as element 5.¹ Applicants submit clearly if such an arbitrary portion of element 2 is selected that has a lesser width than that of the cited low concentration base region 5, such an arbitrary portion would **not** be in contact with the cited high concentration gate regions 30a, 30b. Thereby, the claims as currently written are believed to clearly distinguish over Okuno.

¹ Office Action of June 7, 2010 at page 3.

The outstanding rejection relies on Lee to disclose the “high concentration gate region” to be the two p⁺ regions, and the outstanding rejection relies on Lee to disclose the “non-implanted portion” as an arbitrary portion of 20 between those two p⁺ regions, and additionally relies upon Lee to disclose the “low concentration base region” as the portion of 22 between two p⁻ regions.²

In reply to that grounds for the rejection, under the interpretation of Lee, the cited high concentration gate regions of the p⁺ regions are *not* adjacent to and in contact with the cited non-implanted portion of an arbitrary portion of 20 that would have a greater width than the low concentration base region of the portion of 22 between the two p⁻ regions. Thereby, the claims as currently written are believed to clearly distinguish over Lee.

Applicants submit the claims as currently written positively recite features neither taught nor suggested by Okuno and Lee either singularly or in any combination, and thus the claims are allowable over Okuno and Lee.

As no other issues are pending in this application, it is respectfully submitted this application is in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

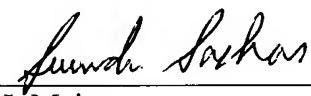
Respectfully submitted,

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² Office Action of June 7, 2010 at page 6.